

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
 (Chapter II of the Patent Cooperation Treaty)

REC'D 12 MAY 2004  
WIPO PCT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>2020529PC/nu</b>	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416																									
International application No. <b>PCT/FI2002/001033</b>	International filing date (day/month/year) <b>17-12-2002</b>	Priority date (day/month/year) <b>16-04-2002</b>																								
International Patent Classification (IPC) or national classification and IPC <b>H04L 12/28, H04L 29/06, H04Q 7/38, H04L 9/32, H04L 12/14</b>																										
Applicant <b>Nokia Corporation et al.</b>																										
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 15%; text-align: center;">Box No. I</td> <td style="width: 70%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;">Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>			<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand <b>08-08-2003</b>	Date of completion of this report <b>04-05-2004</b>
Name and mailing address of the IPEA/SE <b>Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM</b>	Authorized officer <b>Roger Bou Faisal /LR Telephone No. +46 8 782 25 00</b>
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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/FI2002/001033

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on a translation from the original language into the following language english, which is the language of a translation furnished for the purposes of:

international search (under Rules 12.3 and 23.1(b))  
 publication of the international application (under Rule 12.4)  
 international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

the international application as originally filed/furnished

the description:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (specify): \_\_\_\_\_  
 any table(s) related to the sequence listing (specify): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (specify): \_\_\_\_\_  
 any table(s) related to the sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/FI2002/001033

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	<u>1-47</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	<u>17-20, 40-44</u>	YES
	Claims	<u>1-16, 21-39, 45-47</u>	NO
Industrial applicability (IA)	Claims	<u>1-47</u>	YES
	Claims	_____	NO

## 2. Citations and explanations (Rule 70.7)

Documents cited in the international search report:

D1: EP 1191763, A2  
 D2: WO 0221464, A2  
 D3: WO 0219593, A2  
 D4: US 6112078, A  
 D5: WO 0167716, A1

D1 relates to an access authentication system provided for authenticating access for visitors to a wireless local area network (W-LAN), the operator of which administers a visitor authentication, authorisation and accounting (VAAA) server. The user, on requesting visiting access to the W-LAN, inputs, via the VAAA server, identity information that enables the HAAA to issue a personal identification number (PIN) which is encoded and forwarded, preferably by way of a short message service (SMS), to the user's mobile telephone. This encoded PIN is transferred to the browser to authenticate the requested visiting access to the W-LAN, and the costs associated with such access are billed to the user's cellular mobile account; the requested access being achieved via the user's browser. Alternatively, the user may call the VAAA on the mobile telephone to provide said identity information, in which case, the subject telephone call is preferably forwarded to the HAAA via a premium rate call unit.

D2 provides a method of ordering, paying for and delivering goods and services using a mobile station. This method starts by authenticating the mobile station is permitted access to a telecom infrastructure. It then accesses a gateway by the

.../...

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

mobile station and transmits an identification code for the mobile station to the gateway. This method then requests a digital certificate by the mobile station from the gateway used for ordering and paying for a product or service from a seller using the certificate. The method then verifies the identity of the mobile station by the gateway accessing an authentication centre and comparing variables computed by the mobile station and variables computed by the gateway. It then verifies the legitimacy of the gateway by comparing the variables computed by the gateway with the variables computed by the mobile station. The method delivers a digital certificate to the mobile station by the gateway when the identity of the mobile station and the gateway has been verified.

D3 reveals a system and method for verifying the identity of an end-user. The end-user requests to access an external application. The external application sends an authentication request to an authentication server, which generates a random token. The generated token is transmitted to the end-user. The end-user enters the generated token and a personal identification number into a cellular terminal connected to a GSM network. At least the token is encrypted using a secret key stored within the cellular terminal and transmitted through the GSM network to an authentication gateway. The token is decrypted by the authentication gateway using either the same secret key or a key matched to the secret key. The token is then transmitted to the authentication server where the received key is compared to the generated key. The results of the comparison are transmitted to the external application.

D4 relates to a method for obtaining at least one item of user authentication data. The method involves obtaining user specific authentication data at least partly by using paging or short message service.

D4 and D5 are state of the art documents.

The claimed invention is based on the idea that a data transfer device user is authenticated utilizing the identification data of the subscriber of a mobile communications system.

.../...

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.  
Continuation of: Box V

The invention according to independent claims 1 and 24 differs from D1, which is the most relevant document, by the steps of checking the access rights of the subscriber and by generating a password for logging in to the service. However in D1, an authentication of the subscriber, requesting access to a service, is made by using the personal identification number (PIN). Also, identity information is used as input via the VAAA for issuing personal access cod (PIN) (abstract).

In D2 a digital certificate is used, in response to a request including identity information, to authenticate and give the user access to services (page 3, "Disclosure of the invention").

In D3, a procedure is mentioned for generating a logging in password in response to a service request. This access request includes identification information in the form of a Mobile Subscriber ISDN number (MSISDN) (page 1 line 5- page 3, line 22; page 8, line 20- line 27; page 11, line 1- line 20).

D1-D3 discloses inventions that solve the problem of authenticating a subscriber to access a requested service in an efficient way.

Thus, with reference to any of D1-D3, the invention according to the independent claims 1 and 24 is obvious to a person skilled in the art and therefore not considered to involve an inventive step.

The invention according to dependent claims 2-16, 21-23, 25-39 and 45-47 comprises only steps and details that are considered obvious to a person skilled in the art and therefore not considered to involve an inventive step, with reference to D1-D3.